



Mark Scheme (Results)

January 2023

Pearson BTEC Nationals
In Information Technology (31760H)
Unit 1: Information Technology Systems

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications website at <http://qualifications.pearson.com/en/home.html> for our BTEC qualifications.

Alternatively, you can get in touch with us using the details on our contact us page at <http://qualifications.pearson.com/en/contact-us.html>

If you have any subject specific questions about this specification that require the help of a subject specialist, you can speak directly to the subject team at Pearson. Their contact details can be found on this link:

<http://qualifications.pearson.com/en/support/support-for-you/teachers.html>

You can also use our online Ask the Expert service at <https://www.edexcelonline.com>

You will need an Edexcel Online username and password to access this service.

Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your learners at: www.pearson.com/uk.

Unit 1: Information Technology Systems

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- All marks on the mark scheme should be used appropriately.
- All marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if a candidate's response is not worthy of credit according to the mark scheme.
- Where some judgment is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt about applying the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed-out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Phonetic spelling should be accepted.

Specific marking guidance

The marking grids have been designed to assess learner work holistically.

Rows in the grids identify the assessment focus/outcome being targeted. When using a marking grid, the 'best fit' approach should be used.

- Examiners should first make a holistic judgement on which band most closely matches the learner's response and place it within that band. Learners will be placed in the band that best describes their answer.
- The mark awarded within the band will be decided based on the quality of the answer, in response to the assessment focus/outcome and will be modified according to how securely all bullet points are displayed at that band.
- Marks will be awarded towards the top or bottom of that band, depending on how they have evidenced each of the descriptor bullet points.

BTEC Next Generation Mark Scheme Template**ICT Unit 1 Jan 2023**

Question Number	Answer	Mark
1a	<p>Any two from:</p> <ul style="list-style-type: none">• Can download onto any device / synchronise devices (1)• Easier / quicker to share files (1)• (Automatic) backup (is done by cloud storage provider) (1)• Saves space on devices (1)• Cheap(er) to use (David only pays for the storage he needs) (1)• Convenient (do not need additional hardware) (1) <p>DO NOT ACCEPT</p> <p>Easier, quicker on its own</p> <p>Security / safer</p> <p>Accept any other valid response</p>	2

Question Number	Answer	Mark
1b	<p>Any two from:</p> <p>May worry about:</p> <ul style="list-style-type: none">• security / virus (protection) / unauthorised access (1)• losing his files (1)• overload his devices (automatic syncing) (1)• cost (expense once free storage is used up) (1)• online servers could go down (1)• data breach / leak (if photographs get leaked online) (1) <p>Accept 'Hackers' as unauthorised access</p> <p>Accept any other valid response</p>	2

Question Number	Answer	Mark
1c(i)	<p>Any two from:</p> <ul style="list-style-type: none"> • Incorrect spelling (1) • (Legitimate companies) would not ask for personal / billing details (1) • Urgency ('immediately' in the text is suspicious) (1) • Message makes you fearful of consequences of not responding (1) • There is no 'personalisation' in the text (1) • URL reference / hyperlink (1) <p>Accept any other valid response</p>	2

Question Number	Answer	Mark
1c(ii)	<p>Any two from:</p> <ul style="list-style-type: none"> • do not click any links / phone numbers (in the message) (1) • do not respond (to the text message) (1) • delete texts (1) • check authenticity of the message (1) • report all phishing attacks (to the appropriate organisation) (1) • message filtering / junk (1) • block (number) (1) • update software (automatically) (1) <p>Accept any other valid response</p> <p>DO NOT ACCEPT: Install anti-virus</p>	2

Question Number	Answer	Mark
1d(i)	<p>Award one mark for each point up to a maximum of four marks.</p> <ul style="list-style-type: none"> • choose blogging platform / host (1) • install blogging software (1) • create an account / log into his account (1) • choose a blog name (1) • choose a domain extension/name (1) • design blog layout / choose a template (theme) (1) • create / write blog (1) • upload photos (1) 	4

	<ul style="list-style-type: none">• publish / post blog (1) <p>Accept any other valid response</p>	
--	--	--

Question Number	Answer	Mark
1d(ii)	<p>Award up to two marks for each of two linked explanations, such as:</p> <p>Engagement with readers (1) who can provide online feedback (1)</p> <p>Increase visibility of the posts / new leads / more customers (1) by adding (wedding related) hashtags (1)</p> <p>Tell a story/process about his services (1) so that he can share/demonstrate techniques (1)</p> <p>Cheaper way (to show wedding photographs) (1) rather than the cost of printing to take to wedding conventions (1)</p> <p>Accept any other valid response</p>	4

Question Number	Answer
1e	<p>Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and level descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers.</p> <p>Learners discuss the features of other relevant platforms he could use upload and show his wedding photographs.</p> <p>Social media (accept brand names, e.g. Facebook, Instagram, etc.)</p> <ul style="list-style-type: none">• location tagging• private/group messaging• create groups• share/like photographs/videos of the weddings• use hashtags to target specific demographics• provides statistics on how many times a photograph has been viewed, shared or commented on• 'Go Live' feature• 'Reporting' feature• accessibility features (e.g. zoom feature) <p>Microblog</p> <ul style="list-style-type: none">• short messages that are shared online (text, images, videos, hyperlinks, etc.)• can post (microblogs) on social media sites <p>Vlog (accept brand names, e.g. YouTube)</p> <ul style="list-style-type: none">• live streaming• video sharing• links• comments sections• subscribe facilities• 3D videos• 360-degree feature• annotations can be added to videos <p>Wiki</p> <ul style="list-style-type: none">• can limit access to a group• simultaneous sharing of documents• can include section tabs/links between pages <p>Instant messaging (IM) / Messaging apps (WhatsApp, etc.)</p> <ul style="list-style-type: none">• send (wedding) images to clients (individuals / groups)• send (wedding) videos to clients (individuals / groups)• communicate in real/near real time• notifications/alerts when a message has been received

	<ul style="list-style-type: none">• send content using a mobile device• can access chat history• create a chat room with clients <p>Forums</p> <ul style="list-style-type: none">• can personalise to ensure content is relevant to audience• share / like (wedding) images and videos• create user groups• email notifications• private / group messaging• group / single sign on facility• can set up security / privacy options
--	---

Mark scheme (award up to 8 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.

Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding• There will be major gaps or omissions• Few of the points made will be expanded• Limited discussion which contains generic points• Little or no consideration of different aspects
Level 2	4–6	<ul style="list-style-type: none">• Demonstrates some accurate knowledge and understanding• There will be some gaps or omissions• Some of the points made will be relevant to the context in the question, but the link will not always be clear• Displays a partially developed discussion which considers some different aspects• There will be some consideration of how they interrelate
Level 3	7–8	<ul style="list-style-type: none">• Demonstrates mostly accurate and detailed knowledge and understanding• There will be minor gaps or omissions• Most of the points made will be relevant to the context in the question, and there will be clear links• Displays a well-developed and logical discussion which clearly considers a range of different aspects• Clearly shows how they interrelate

Question Number	Answer	Mark
2a	<p>Award one mark for identification and one additional mark for appropriate expansion.</p> <p>(Data collected) is more accurate / valid / reliable / relevant (1) because it is gathered from a specific audience (1)</p> <p>(Data collected) is up to date (1) because it is collected at the time of the research (1)</p> <p>High level of control (1) because Jamal has selected the demographic/questions (1)</p> <p>Accept any other valid response</p> <p>DO NOT ACCEPT: Gathering data from the local community – references the question.</p>	4

Question Number	Answer	Mark
2b(i)	<p>Award one mark for each point up to a maximum of 2 marks.</p> <ul style="list-style-type: none">• limits choice (1)• makes analysis easier/quicker (1)• precise/expected responses (1)• easy to input into analytical software (1)• more likely to respond (1)• easily customised / replicated / modified (1) <p>Accept any other valid response</p> <p>Do not award easier/quicker on its own.</p>	2

Question Number	Answer	Mark
2b(ii)	<p>Award one mark for each point up to a maximum of 2 marks.</p> <ul style="list-style-type: none">• Look through the data/responses (1)• Identify key / repeating / common themes (1)• Code/tag (to make searchable/countable) (1)• Collate frequency of response (1) <p>Accept any other valid response</p>	2

Question Number	Answer	Mark
2c	<p>Award one mark for each identification and one additional mark for each appropriate expansion. Up to a maximum of four marks.</p> <ul style="list-style-type: none"> • Improved productivity / easier/quicker to access the results (1) because they are automatically collated / Jamal does not have to physically collate the data (1) • Easier/quicker to collect the data (1) because it is automatically stored electronically (1) • Greater flexibility (1) because he can update the questionnaire to suit his needs (1) • Lower costs (1) because no need for postage / printing hard copies (1) • More accurate (1) because it eliminates Jamal's data entry errors (1) • Higher completion rate (1) because most people could prefer to complete online questionnaires / could be more accessible online (rather than hard copies) (1) • Quicker distribution (1) because it can all be done electronically (1) <p>Accept any other valid response</p> <p>DO NOT ACCEPT Responses relating to the environment, the question is about benefits to Jamal.</p>	4

Question Number	Answer	Mark
2d	<p>Award one mark for identification and one additional mark for appropriate expansion.</p> <ul style="list-style-type: none"> • survey (1) because they are anonymous (1) • focus groups (1) which allows Jamal to have collective/shared responses (1) • interview (1) which enables Jamal to ask follow on questions (1) <p>Accept any other valid response</p> <p>DO NOT ACCEPT: Forum / poll / observations</p>	2

Question Number	Answer
2e	<p>Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and level descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers.</p> <p>Learners discuss other factors that should be considered when posting a questionnaire online.</p> <p>Ease of Use</p> <ul style="list-style-type: none">• obvious places for users to enter data• logical flow through the questions to help users navigate• pop-up instructions to help users• consistency layout• appropriate/consistent fonts/colours• consistent navigation techniques <p>Accessibility</p> <ul style="list-style-type: none">• provide text alternatives for non-text content• allow 'zoom' feature• available to assistive technologies• provide contrast to make things easy to see• make text readable/understandable/concise/simple <p>Error reduction</p> <ul style="list-style-type: none">• minimise data entry requirements• appropriate controls, e.g. buttons/radio buttons/tick boxes/ drop down menus• include data validation techniques <p>Intuitiveness</p> <ul style="list-style-type: none">• use standard icons• use standard navigation methods <p>Functionality</p> <ul style="list-style-type: none">• is all the functionality keyboard accessible?• consider other ways of accessing, e.g. touch screen• provide ways of 'undoing' incorrect responses <p>Performance</p> <ul style="list-style-type: none">• ensure minimal lag between submission and next question <p>Compatibility</p> <ul style="list-style-type: none">• consider different platforms, e.g. tablets/PC• consider different operating systems, e.g. windows/IOS

Mark scheme (award up to 8 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.

Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1-3	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding• There will be major gaps or omissions• Few of the points made will be relevant to the context in the question• Limited discussion which contains generic points• Little or no consideration of different aspects
Level 2	4-6	<ul style="list-style-type: none">• Demonstrates some accurate knowledge and understanding• There will be some gaps or omissions• Some of the points made will be relevant to the context in the question, but the link will not always be clear• Displays a partially developed discussion which considers some different aspects• There will be some consideration of how they interrelate
Level 3	7-8	<ul style="list-style-type: none">• Demonstrates mostly accurate and detailed knowledge and understanding• There will be minor gaps or omissions• Most of the points made will be relevant to the context in the question, and there will be clear links• Displays a well-developed and logical discussion which clearly considers a range of different aspects• Clearly shows how they interrelate

Question Number	Indicative content
3a	<p>A diagram of a potential system / integration of IT systems and connections used to meet the requirements of the scenario i.e. the GFC systems</p> <p>Example response – note this is indicative only.</p> <pre> graph TD SalesTerminal[Sales terminal] -- "Stock request" --> InStoreServer[In-store server] SalesTerminal -- "Stock availability" --> InStoreServer InStoreServer -- "Stock availability" --> Router1((Router)) InStoreServer -- "Stock check" --> InStoreDatabase[In-store database] Router1 -- "Stock availability" --> Router2((Router)) Router1 -- "VPN" --> InternetCloud[The Internet] Router2 -- "Stock availability" --> CompanyServer[Company server] Router2 -- "VPN" --> CompanyServer CompanyServer -- "Stock check" --> WarehouseDatabase[Warehouse database] CompanyServer -- "Stock availability" --> WarehouseDatabase </pre> <p>Credit should be given for a diagram that meets the requirements of the given problem.</p>

	<p>Diagram may include:</p> <p>Devices:</p> <p>Sales terminal In-store server In-store file server/ database In-store router</p> <p>Company router Company server Company/warehouse file server / database</p> <p>Connections:</p> <p>Sales terminal to in-store server In-store server to router</p> <p>In-store router to company router – VPN Company router to company server Company server to database server/database</p> <p>Data flow:</p> <p>All connections will have two-way data flow Essentially requests for stock going in-store to warehouse Information/results coming back</p> <p>Annotations:</p> <p>Annotations indicating data, devices, and systems.</p>
--	--

Mark scheme (award up to 6 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.

Level	Descriptor
0 marks	No rewardable material
1-2 marks	<p>Diagram provides partial coverage of appropriate devices. Storage/Data sharing and connection types are used to meet some of the requirements of the scenario.</p> <p>Diagram includes annotations of the data that will be shared among the components of the system.</p>
3-4 marks	<p>Diagram provides coverage of mostly appropriate devices. Storage/data sharing and connection types are used to meet the majority of the requirements of the scenario, but these may not always be the most efficient.</p> <p>Diagram includes mostly accurate annotations of the data that will be shared among the components of the system</p>

5-6 marks	<p>Diagram provides thorough coverage of appropriate devices. Storage/data sharing and connection types are used to fully meet the requirements of the scenario.</p> <p>Diagram includes detailed and accurate annotations of the data that will be shared among the components of the system.</p>
-----------	--

Question Number	Answer	Mark
3b	<p>Award one mark for each point up to a maximum of four marks.</p> <ul style="list-style-type: none">• VPN software used (by the sender) (1)• (the software) encrypts data (1)• sends (encrypted) data to the VPN server (1)• the (encrypted) data is sent over the internet (1)• through a secure connection (1)• (encrypted) tunnel (1)• the (encrypted) data is decrypted (by the VPN server) (1) <p>Accept any other valid response.</p> <p>DO NOT ACCEPT: 'encrypts the connection'</p>	4

Question Number	Answer	Mark
3c	<p>Award one mark for each point up to a maximum of four marks.</p> <ul style="list-style-type: none">• the firewall forms a barrier between the device and a network (1)• using either hardware and/or software (1)• which are connected using designated ports (1)• the firewall filters/checks incoming/outgoing traffic (1)• against a set of rules / filter the data / compare to blacklist/whitelist (1)• blocks connections / stops (unauthorised) access to the system/data (1)• It alerts the user to anything it finds suspicious/harmful (1) <p>Accept any other valid response.</p> <p>DO NOT ACCEPT: 'Blocks' on its own</p>	4

Question Number	Answer
3d	<p>Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and level descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers.</p> <p>Discuss the implications to GFC of using robots in the warehouse.</p> <p>Benefits of using robots in the warehouse</p> <p>Improved efficiency/productivity</p> <ul style="list-style-type: none">• can improve performance/productivity because human error can be quite costly for GFC and will lead to customer dissatisfaction• the warehouse will be able to handle larger quantities of goods each day, which will speed up order completion• repetitive tasks can be completed by the robots, which will allow GFC's employees to spend time on other tasks which require critical thinking• production will be more consistent, because factors such as distractions, tiredness, experience, staff turnover could affect employees• robots offer flexibility because they can run continuously (24/7), only stopping for maintenance needs. <p>Reduction in errors</p> <ul style="list-style-type: none">• accuracy will increase because robots are programmed to perform same/repeated tasks more accurately, resulting in higher quality products• using robots for routine operations in the warehouse reduces the risk of human mistakes, allowing employees to focus on quality control measures <p>Reduced overheads / running costs</p> <ul style="list-style-type: none">• lower operating costs, because robots do not need to work in heated or lit environments• reduced employment costs to GFC, because fewer employees may be needed and robots do not require salaries <p>Warehouse safety / improved working conditions</p> <ul style="list-style-type: none">• safety for workers is improved, because robots can undertake dangerous jobs that could put GFC's employee's safety at risk (e.g. working at heights, carrying heavy loads, etc.)• robots can be used to transfer large items safely and without damage• reduces the chances of accidents (falling items, trips, falls, etc.) <p>Customer satisfaction</p> <ul style="list-style-type: none">• increased delivery speeds / and decreased human error will give the GFC a competitive edge and increase customer satisfaction

	<ul style="list-style-type: none">using robots in the warehouse GFC can allow workers more time to concentrate on customer relations <p>Drawbacks of using robots in the warehouse</p> <p>Cost</p> <ul style="list-style-type: none">the initial purchasing of the robots can be quite costly in the short-term rather than hiring employees for the warehouse or using other equipment such as forkliftsadditional electricity costs will be incurredspecialist technicians are required to undertake ongoing maintenance of the robots which would be expensive for the GFC, because their salaries would be higherrobots require skilled robotic programmers, which would cost GFC substantial money <p>Adaptability</p> <ul style="list-style-type: none">robots don't adapt to changing situations in the workplace, and are difficult to re-program to accommodate the changeserrors will be shown if identifying labels are unreadable or misplaced on the products which will require assistance from human employees <p>GFC employees</p> <ul style="list-style-type: none">employees might be concerned about losing their jobs, because robots are introduced to replace some employees <p>Different types of warehouse robot</p> <p>Picking</p> <ul style="list-style-type: none">can be used to move around the aisles collecting/depositing items on shelvespicking robots reduce order processing times <p>Sorting</p> <ul style="list-style-type: none">can be used to identify items and deposit in the correct storage area <p>Packing</p> <ul style="list-style-type: none">can be used to speed up packing operationscan calculate the package size using the weight and dimensions of the item <p>Transportation</p> <ul style="list-style-type: none">can be used to decrease the physical demand of moving items around the warehouse <p>Replenishment</p> <ul style="list-style-type: none">robots can be programmed to automatically replenish stock/send alerts when levels drop below the minimum threshold <p>Do Not Accept 'work breaks' for costs</p>
--	--

Mark scheme (award up to 8 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.

Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1-3	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding• There will be major gaps or omissions• Few of the points made will be relevant to the context in the question• Limited discussion which contains generic points• Little or no consideration of different aspects
Level 2	4-6	<ul style="list-style-type: none">• Demonstrates some accurate knowledge and understanding• There will be some gaps or omissions• Some of the points made will be relevant to the context in the question, but the link will not always be clear• Displays a partially developed discussion which considers some different aspects• There will be some consideration of how they interrelate
Level 3	7-8	<ul style="list-style-type: none">• Demonstrates mostly accurate and detailed knowledge and understanding• There will be minor gaps or omissions• Most of the points made will be relevant to the context in the question, and there will be clear links• Displays a well-developed and logical discussion which clearly considers a range of different aspects• Clearly shows how they interrelate

Question Number	Answer
4a	<p>Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and level descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers.</p> <p>Learner to discuss the impact and implications, other than security, that the organisation should consider so students can access and use the online resources.</p> <p>Ease of use/intuitiveness</p> <ul style="list-style-type: none">• must be easy to use/intuitive – users' familiarity/knowledge of using websites for education purposes will range widely and they may not keep using the site if they encounter problems/difficulties• obvious places for students to enter data when required• update the page regularly with current content/resources• consistency layout/navigation/fonts/colours• have logical flow through the pages/subjects/resources to help users navigate• appropriate controls, e.g. buttons/radio buttons/tick boxes/drop down menus• pop up instructions to help users <p>Accessibility</p> <ul style="list-style-type: none">• LN-Educ should incorporate accessibility features, to ensure inclusive access to content/resources for all students• provide text alternatives for non-text content• make it available to assistive technologies• incorporate features that will allow ease of use for visually impaired, e.g. use sufficient contrast to make things easy to see, make content adaptable, suitable fonts/colours to assist readability• incorporate features for hearing impaired, e.g. captions and alternatives for audio and video content• features for specific disabilities, e.g. do not use content that causes seizures• language options <p>Performance</p> <ul style="list-style-type: none">• no lag when interacting with the website• compatibility with different web browsers <p>Availability</p> <ul style="list-style-type: none">• consider different platforms, e.g. tablets/PCs/laptops• 24/7 access to students <p>Cost</p> <ul style="list-style-type: none">• updating and maintaining the website, courses and materials

	<ul style="list-style-type: none">• May need to employ extra IT staff initially and/or long term <p>Testing</p> <ul style="list-style-type: none">• testing of the online resources need to be planned thoroughly• ensure the website is tested for stability and software/hardware compatibility <p>User support</p> <ul style="list-style-type: none">• onsite help/call desk facilities
--	---

Mark scheme (award up to 10 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.		
Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1-4	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding• There will be major gaps or omissions• Few of the points made will be relevant to the context in the question• Limited discussion which contains generic points• Little or no consideration of different aspects
Level 2	5-7	<ul style="list-style-type: none">• Demonstrates some accurate knowledge and understanding• There will be some gaps or omissions• Some of the points made will be relevant to the context in the question, but the link will not always be clear• Displays a partially developed discussion which considers some different aspects• There will be some consideration of how they interrelate
Level 3	8-10	<ul style="list-style-type: none">• Demonstrates mostly accurate and detailed knowledge and understanding• There will be minor gaps or omissions• Most of the points made will be relevant to the context in the question, and there will be clear links• Displays a well-developed and logical discussion which clearly considers a range of different aspects• Clearly shows how they interrelate

Question Number	Answer
4b	<p>Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and level descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers.</p> <p>Learners analyse the factors which may hinder access to the courses and the implications for overseas students.</p> <p>Learners should consider:</p> <ul style="list-style-type: none">• Globalisation• Freedom of speech and censorship• Unequal access to information technology <p><u>Globalisation</u></p> <p>Globalisation implies that all nations/ countries/states can use the advances in telecommunication systems to interact, regardless of geographical location.</p> <p>However, some nations/ countries/states within countries do not benefit from globalisation for a variety of reasons:</p> <ul style="list-style-type: none">• the electricity infrastructure may be inadequate• broadband connections may be non-existent or intermittent• may only have access to potentially slower wireless infrastructures• students may need to go to a 'central' location, such as a school, to access the internet, there may only be one connection point for all students to share• the hardware/software available may be outdated – often second hand• may not have skilled IT staff to help them develop skills <p><u>Freedom of speech and censorship</u></p> <p>Not all governments allow individuals to have complete freedom to use the internet as they wish. They may block:</p> <ul style="list-style-type: none">• the internet• specific search engines• searches/queries on specific topics• social media sites <p><u>Unequal access to information technology</u></p> <p>Due to the factors given above access to IT is unequal.</p> <p>The implications of this for overseas students are:</p> <p>Education:</p> <ul style="list-style-type: none">• Limited access to course materials may mean that students are disadvantaged in terms of the quality and accuracy of their knowledge.• Lack of IT infrastructure may mean that they cannot follow these courses

	<p>Employment:</p> <ul style="list-style-type: none">• They may not be able to develop desirable skills such as technical or programming skills which could lead to better paid jobs• Lack of infrastructure may mean they cannot access specific technologies that allow them to apply for employment or to be able to subscribe to working styles (remote working etc.)• Lack of access to information may restrict them from the application process or mean they are not aware of potential jobs. <p>Financial:</p> <ul style="list-style-type: none">• A lack of 'public' infrastructure may mean that access to internet and other technologies is restricted to those that can afford expensive mobile technology• An inability for an area to support high speed online services, may mean that the economy of that area suffers as they cannot compete with other countries in a global market.
--	---

Mark scheme (award up to 12 marks) refer to the guidance on the cover of this document for how to apply levels-based mark schemes*.

Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1-4	<ul style="list-style-type: none">• Demonstrates isolated knowledge and understanding, there be major gaps or omissions• Breaks the situation down into component parts and a few of the points made will be relevant to the context in the question• Limited analysis which contains generic assertions rather than interrelationships or linkages
Level 2	5-8	<ul style="list-style-type: none">• Demonstrates some accurate knowledge and understanding, with few minor omissions/any gaps or omissions are minor• Breaks the situation down into component parts and some of the points made will be relevant to the context in the question• Displays a partially developed analysis which considers some interrelationships or linkages but not always sustained
Level 3	9-12	<ul style="list-style-type: none">• Demonstrates mostly accurate and thorough/detailed knowledge and understanding• Breaks the situation down into component parts and most of the points made will be relevant to the context in the question• Displays a well-developed and logical analysis which clearly considers interrelationships or linkages in a sustained manner



Llywodraeth Cymru
Welsh Assembly Government

